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ABSTRACT

Occupational sex role stereotyping occurs early in children's lives. To understand this process, a study of occupational sex-role stereotyping in seventh-, eighth-, and ninth-grade students (N=178) is presented here. The independent variables were gender, grade level, self-reported grades, participation in career planning activities, family structure, job status of the mother, participation in extracurricular activities, and size of school. Scores on the Occupational Sex-Stereotyping Instrument, as adapted by the researcher, served as the dependent variable. A status survey factorial design was employed resulting in a general linear model. Main effects include: (1) students enrolled in ninth grade had a statistically larger mean Occupational Sex-Stereotyping score than students enrolled in eighth grade; (2) students whose mothers did not work outside the home showed more stereotyping; (3) students with better grades reported less sex-stereotyping. A number of interaction results are reported with important generalizations derived from the interaction of variables. Results are discussed and related to research in the field; recommendations for further study are included. The Demographic Information Sheet, Student Activity Sheet, Occupational Sex-Stereotyping Instrument, Letters to School Administration, Approval Letters, and the Standard Instruction Sheet are appended. (Contains 27 references.) (EMK)

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ED 417 365

OCCUPATIONAL SEX-ROLE STEREOTYPING IN THE MIDDLE SCHOOL

being

A Thesis Presented to the Graduate Faculty

of the Fort Hays State University in

Partial Fulfillment of the Requirements for

the Degree of Master of Science

by

Steven R. Nordby

B.S., Fort Hays State University

Date 11-20-97 Approved Bill Daley
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Graduate Committee Approval

The Thesis Committee of Steven R. Nordby hereby approves his thesis as meeting partial fulfillment of the requirements for the Degree of Master of Science.

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Table of Contents

	Page
Introduction	1
Overview	1
Career Education, Textbooks and Occupational Sex-role Stereotyping	4
Elementary Education and Occupational Sex-role Stereotyping	7
Gender and Occupational Sex-role Stereotyping	8
Family Status and Occupational Sex-role Stereotyping	11
Participation in Extracurricular Activities and Occupational Sex-role Stereotyping	12
Summary	14
Statement of the Problem	14
Rationale and Importance of the Research	15
Composite Null Hypotheses	16
Independent Variables and Rationale	17
Definition of Variables	17
Independent Variables	17
Dependent Variable	19
Limitations	19
Methodology	19
Settings	19
Subjects	20
Instruments	20
Demographic Information Sheet	20
Student Activity Sheet	21

Occupational Sex-Stereotyping Instrument 21
Design 21
Data Collection Procedures 22
Data Analysis 23
Results 23
Discussion 41
Summary 41
Related Literature and the Results of the Present Study 43
Generalizations 43
Implications 44
Recommendations 44
References 46

List of Appendixes

Page

Appendix A: Demographic Instrument 49

Appendix B: Student Activity Sheet 51

Appendix C: Occupational Sex-Stereotyping Instrument 53

Appendix D: Letters to School Administration 55

Appendix E: Letters of Approval from Administration 59

Appendix F: Standard Instruction Sheet 63

Appendix G: Letter from Lavonda Eichman, M.S 65

List of Tables

Page

Table 1: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th, and 9th Grade Students According to Gender, Grade Level, and Job Status of the Mother Employing a Three-Way Analysis of Variance (General Linear Model)..... 25

Table 2: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th, and 9th Grade Students According to Gender, Grade Level, and Family Structure of the Mother Employing a Three-Way Analysis of Variance (General Linear Model)..... 27

Table 3: A Comparison of mean Occupational Sex-Stereotyping Scores of 7th, 8th, and 9th Grade Students According to Gender, Participation in Extracurricular Activities, and the Size of School Employing a Three-Way Analysis of Variance (General Linear Model)..... 29

Table 4: A Comparison of mean Occupational Sex-Stereotyping Scores of 7th, 8th, and 9th Grade Students According to Gender, Participation in Career Planning Activities, and Job Status of The Mother Employing a Three-Way Analysis of Variance (General Linear Model)..... 32

Table 5: A Comparison of mean Occupational Sex-Stereotyping Scores of 7th, 8th, and 9th Grade Students According to Gender, Grade Level, and Size of School Employing a Three-Way Analysis of Variance (General Linear Model)..... 35

Table 6: A Comparison of mean Occupational Sex-Stereotyping Scores of 7th, 8th, and 9th Grade Students According to Grade Level, Self -Reported Grades, and Job Status of The Mother Employing a Three-Way Analysis of Variance (General Linear Model)..... 40

List of Figures

Page

Figure 1: The Interaction Between Gender and School Size for the Dependent Variable Occupational Sex - Stereotyping Scores..... 30

Figure 2: The Interaction Between Gender and Job Status for the Dependent Variable Occupational Sex - Stereotyping Scores..... 33

Figure 3: The Interaction Between Grade Level and School Size for the Dependent Variable Occupational Sex - Stereotyping Scores..... 37

Figure 4: The Interaction Among Gender, Grade Level and School Size for the Dependent Variable Occupational Sex - Stereotyping Scores..... 38

Abstract

The purpose of the researcher was to investigate occupational sex-role stereotyping in 7th, 8th, and 9th grade students. The independent variables investigated were: gender, grade level, self-reported grades, participation in career planning activities, family structure, job status of the mother, participation in extracurricular activities and size of school. The dependent variable was Occupational Sex-Stereotyping scores. The sample consisted of 178 middle school students. Six composite null hypotheses were tested at the .0500 level. Each composite null hypothesis was tested employing a three-way analysis (general linear model).

A total of 26 comparisons were made plus 16 recurring. Of the 26 comparisons 8 were for main effects and 18 were for interactions. Of the 8 main effects, 3 were statistically detectable at the .0500 level. The statistically detectable main effects were for grade level, job status of the mother and self reported grades. The results indicated the following for main effects:

1. students enrolled in the 9th grade had a statistically larger mean Occupational Sex - Stereotyping score than students enrolled in the 8th grade,
2. students whose mothers did not work outside the home had a statistically larger mean Occupational Sex - Stereotyping score than students whose mothers worked full-time outside the home, and
3. students who reported grades of "B and C" had a statistically larger mean Occupational Sex - Stereotyping score than students who reported "All A's " and "A's and B's".

Of the 18 interactions, 4 were statistically detectable at the .0500 level. The following interactions were detectable:

1. the independent variables gender and school size for the dependent variable Occupational Sex - Stereotyping scores,

2. the independent variables gender and job status of the mother for the dependent variable Occupational Sex - Stereotyping scores,

3. the independent variables grade level and school size for the dependent variable Occupational Sex - Stereotyping scores,

4. the independent variables gender, school size and grade level for the dependent variable Occupational Sex - Stereotyping scores,

The results of the present study appeared to support the following generalizations:

1. students who reported grades of "B and C" have more occupational sex-role stereotyping than those with grades of "All A's" and "A's and B's",

2. gender and school size should be interpreted concurrently for occupational sex-role stereotyping,

3. gender and job status of the mother should be interpreted concurrently for occupational sex-role stereotyping,

4. grade level and school size should be interpreted concurrently for occupational sex-role stereotyping,

5. gender, school size and grade level should be interpreted concurrently for occupational sex-role stereotyping,

6. participation in career planning activities of 7th, 8th and 9th graders is not associated with occupational sex-role stereotyping,

7. family structure of 7th, 8th and 9th graders is not associated with occupational sex-role stereotyping, and

8. participation in extracurricular activities 7th, 8th and 9th graders not associated with occupational sex-role stereotyping.

Introduction

Overview

Occupational sex role stereotyping occurs very early in children, although its effect may be altered by age, gender and intervention by schools and family members (Reid & Stephens, 1985). Although occupational sex role stereotyping has been found prevalent in boys and girls of varying age levels, it is less evident in children of today compared to children in previous generations (Smith, 1995).

Most individuals fashion their attitudes about learning, work, and other enduring adult values before or during adolescence (Reid & Stephens, 1985). Attitudes concerning occupations can change drastically during adolescence, especially for girls:

> To the little girls sitting in a medical office, a nurse is a woman of glamour (she wears a uniform, which denotes her position) and a woman of power (she gives shots to the sick, and dispenses lollipops to those who are good). Other female roles such as "mother" and "teacher" may be perceived similarly until the child learns with age and experience that male roles have greater prestige. (Reid & Stephens, p. 286)

What is a stereotype? According to Webster's New World Dictionary (1986) a stereotype is defined as, "A fixed or conventional notion or conception, as of a person, group, idea, etc., held by a number of people, and allowing for no individuality, critical judgment etc" (p. 1397). Sex role stereotyping is defined as "the process by which a person assigns a gender to certain roles or behaviors" (Reid & Stephens, 1985, p.267). Many theories designed to explain the development of stereotyped views concerning occupations and work tasks

derive from several theoretical bases ranging from cognitive-developmental theory to social learning theory (Reid & Stephens).

According to Archer (1985), people will only choose occupations that fit their learned gender stereotype causing a limitation of career options may have negative consequences for both sexes in their attainment of career, educational and lifestyle goals. In the workplace and in the home, individuals who have formed rigid gender stereotypes may feel uncomfortable in situations which required behaviors that did not match their gender-type.

The gender role attitudes of children can be greatly influenced by their school environment. Several studies (Alpert & Breen, 1989, Henshaw, 1992, Mancus, 1992, and Paradise & Wall, 1986) have focused on the presence of occupational sex-role stereotyping in schoolchildren and the factors that contribute to the development of such stereotypes.

Alpert & Breen (1989) surveyed sex role attitudes of 1,309 students in grades 1 through 12. They asked the students to read a list consisting of 46 occupations and work tasks and to indicate those that could best be performed by a male, a female, or either gender. Students in the 1st and 2nd grades responded with a more stereotyped view of occupational titles and tasks than older students while sex role stereotyping appeared to lessen during the high school years.

Henshaw (1992) studied 30 children concerning their sex role stereotyping. The students (15 girls and 15 boys) were enrolled in the 3rd and 4th grades. All subjects were asked to complete 4 tasks designed to demonstrate their views of gender roles by asking them to identify gender-inappropriate toys, activities, and colors. Two generalizations were reached from the results. The first was that perceptions of male and female sex roles were well formed at the

3rd and 4th grade levels. The second was that boys were much more rigid in their gender views than girls.

Henshaw (1992) expressed concern that gender specific roles may be reinforced through comments made by teachers and other school employees to boys about feminine play and girls engaged in more aggressive, typically male play. Hansen & Harless (1988) caution those working with students to "be aware of their own biases and stereotypes and how these attitudes may influence their work" (p. 2).

Mancus (1992) studied the effect of teacher gender on the development of boys' attitudes. A total of 103 students from a control school (no male teachers) and 88 from a treatment school (male and female teachers) were asked to complete a Teacher Gender and Competency Instrument. The instrument consisted of statements describing behaviors of hypothetical teachers. Students were asked to respond to each statement by choosing "male " or "fernale." Although differences in the responses from the student body of each school were not statistically significant, the responses of males and females were significantly different. Boys appeared to be more likely to take an unbiased view of teacher capability when taught by teachers of both sexes. Mancus described the effect with this statement:

> ... we predict that boys will be more likely to see themselves as more academically competent and thus be more inclined toward achievement when they have some male teachers. Likewise, they will be more likely to share authority and express nurturing behavior when they see male teachers doing so. (pp.126-127)

Paradise & Wall (1986) studied the effect that the gender of principals had on the way 1st grade students viewed school staff. All of the 190 students (96

females and 94 males) participating in the study attended classrooms managed by female teachers. Half of the students came from schools headed by female principals, while half attended schools with male principals. All of the subjects were shown videos and pictures of males and females in varying combinations of teacher and principal. Following the videos, the subjects were asked to identify which character was the principal and which was the teacher. In addition "each subject was asked the following questions: Who do you think can be school principals? Who do you think can be grade-school teachers?" (p.3) Students were given the following choices. "only men, more men than women, same number, more women than men, or only men" (p. 3). Most children, regardless of the gender of their principal, could correctly label the characters on the videotapes regardless of their content. Students with female principals however, were more likely to name either gender as capable of being a principal. According to the researchers these results demonstrate little sex role stereotyping in young children and the positive effect that adults can have on the formation of workplace values in those children.

Career Education,Textbooks and Occupational Sex-role Stereotyping

Several factors present in schools can contribute to the development of occupational sex-role stereotypes. These factors include the involvement of the student in career exploration activities and the presence of gender-biased information in textbooks.

When students seek and are provided with competent career guidance, they can be armed with the tools necessary for career exploration and decision making, unbiased information and support for their efforts (McKenna &Ferrero, 1991). Bartholomew & Schnorr (1994) called on counselors to assist in the broadening of career horizons for female students:

> It is essential for counselors to pursue a broader context of traditional and nontraditional career options through the presentation of these options in a non threatening context. Additionally, female students need to be provided with both the opportunity and the time to change personal traits if they feel they are a deterrent to pursuing their career or personal goals or both. (p. 250)

Although some elementary and middle school students may not have sufficient access to organized career education programs, Barnhart (1983) asserted that formal career education is not necessary to influence career choices:

> The educational system has professionals and other personnel who may directly or indirectly influence children and their views of occupational roles. Career education is usually the formal approach to learning about occupations. Much learning about careers takes place via the incidental teaching/learning method. All who are involved in educating children need to be aware of how children view occupational roles. (p. 167)

The impact of school counselors can be negative if the counselor allows sex biased beliefs and information to enter the counseling relationship. Bartholomew and Schnorr (1994) recommend self-evaluation as a method to assure that bias' do not enter career exploration.

> To recognize and address educational bias, it is essential for counselors to examine their own attitudes toward women's roles. As counselors, we do not intentionally hold stereotypical views but are overtly and subtly influenced by our culture. Therefore, self-examination is critical if we are to guide others without bias. (p. 246)

Textbooks used in schools may aide in the development of sex-role

stereotypes. Children spend a great deal of time reading and utilizing the information presented in textbooks. In the past, males and females were presented in textbooks participating in very traditional activities with female occupational roles generally taking the form of a nurse, teacher, or mother (Gonzales-Suarez & Ekstrom, 1989).

Gonzales-Suarez & Ekstrom (1989) evaluated elementary school textbooks used in the United States as part of an international study. The researchers examined male and female models present in 7 textbooks utilized in grade levels pre-primer to 6th. Sex biased textbooks were defined by Schau and Scott (1984,cited by Gonzales-Suarez & Ekstrom, 1989) as those in which females: are presented as main characters far less than males; are portrayed more often than males in derogatory roles; and are portrayed with males in stereotyped roles. The use of language that suggests prescribed sex-roles is also a characteristic of a sex biased textbook.

The researchers counted each human gender model in each of the textbooks utilized in the study. All references to and pictures of human beings were counted. The role of each model was evaluated using a checklist of 45 gender models and 12 gender-role categories.

Of the 4,665 human models recorded, 2,960 were male while 1,705 were female. Male models were more likely to be presented in occupational or historical roles while females were generally presented in forms that emphasized personality characteristics. The authors compared results to a study conducted in 1975 by Women on Words and Images. Although stereotyped images were still present the results of the study demonstrate improvement in the portrayal of gender roles when compared to the earlier study.

Elementary Education and Occupational Sex-role Stereotyping

Smith (1995) conducted a study of 136 elementary students in grades 4 through 6. Smith selected students from two schools in Southwest Kansas. Students were asked to complete an Occupational Sex-Stereotyping instrument in which they chose which gender could perform the tasks associated with 35 occupations. Independent variables investigated were: gender, grade level, job status of the mother, family structure, formal education of the father, formal education of the mother, ethnic group, self reported grades, and size of school. Each of 9 composite null hypotheses was tested at the .05 level using a three-way analysis of variance. Students of non-white ethnic backgrounds were found to be have a larger mean Occupational Sex-Stereotyping score than white students.

Billings (1992) conducted a similar study of 164 elementary students in grades 2, 4, and 6. These students attended a rural northwest Kansas school. Students were asked to complete an Occupational Sex-Stereotyping instrument in which they chose which gender could perform the tasks associated with 30 occupations. Independent variables investigated were gender, family structure, socioeconomic status of the parents, formal education of the parents, and grade level. The researcher formulated 6 composite null hypotheses. Each composite null hypothesis was tested at the .05 level using a three-way analysis of variance. Second graders were found to have a significantly higher mean Occupational Sex-Stereotyping score than their older peers. Girls from low socioeconomic status parents were found to have higher Occupational Sex-Stereotyping than girls from high socioeconomic status parents. Boys from low socioeconomic parents had higher occupational sex-stereotyping than boys from high socioeconomic parents.

Hansen and Harless (1988) called for counselors and other working with students to be more aware of the needs of elementary students involved in career exploration.

> These studies, and numerous others, have shown that young people's career choices still reflect stereotypical views of what is appropriate for their gender, although they may know a wide range of choices that are open to them. Discrepancies between adolescent expectations and realities would suggest that, as educators and counselors, we need to continue to prepare students and clients for a rapidly changing society and to aid them in developing their values, skills, interests, and life choices apart from sex role stereotypes. (Hansen & Harless 1988, p. 1)

Gender and Occupational Sex-role Stereotyping

Boys and girls often choose their occupational roles from two different frames of reference.

> Boys recognize their roles as open and varied; they typically cite a wide range of adulthood goals, for example, builder, doctor, fireman, policeman, pilot. Girls view their roles as circumscribed and fixed; consequently, they name few as their potential adult outcomes, for example, mother, teacher, nurse. (Reid & Stephens, 1985, p. 269)

A study of 9th grade students in 128 Pennsylvania school districts indicated that enrollment in vocational programs tended to be along very traditional gender lines (McKenna & Ferrero ,1991). A questionnaire was provided to each of the 5,937 students during social studies classes. The researchers focused on the factors considered by 9th grade students while choosing an occupation, sources and reliability of occupational information, jobs considered by 9th graders, and interest in nontraditional vocational education programs.

The results of this study indicated that interesting work and pay were the most important factors in selecting an occupation. Students reported that family members were the most helpful sources of career information followed by teachers and counselors. Males from rural areas and females from urban areas were most interested in vocational education. The careers that girls expressed the most interest in exploring were secretary, cosmetologists, lawyer, nurse and doctor. Males responded most favorably to engineer, pilot, auto mechanic and lawyer.

Gender differences in children's beliefs about adult occupational roles were investigated by Archer (1984). Kindergarten, 5th grade, and 11th grade students were asked to indicate which gender could complete the tasks required for each of 44 occupations. Gender differences appeared to decrease as the age of the subject increased. Kindergarten girls were more liberal in their career view than boys, however, there were no significant sex differences in the responses of 5th and 11th grade students. Students involved in the survey were also asked to consider the question "What would you like to be?" In response to this question males and females selected a nearly identical number of occupations demonstrating an equality in the numbers of occupations considered by both genders.

Archer (1985) interviewed 24 6th, 8th, 10th and 12th grade students (12 males and 12 females) asking 6 questions designed to compare the importance of careers to adolescent girls and boys. The results indicated girls were more likely to explore traditional careers than their male peers, although interest in nontraditional careers did increase for girls as they grew older. Girls involved in the study reported a lack of a support system to aide in the development of their career choice.

Kammer (1985) surveyed the career expectations of 128 rural (53 male and 75 female) students. A 14 page questionnaire comprised of multiple-chioce and open-ended question was utilized. The questions focused on the student's expectations of their education and career plans. Both boys and girls appeared to enroll in the same type and number of mathematics and science courses. Boys were more likely to select mechanical careers such as agriculture and work involving machines. Girls were more likely to select clerical careers such as salespersons and business managers. Boys were also more confident than girls in their ability to meet their career goals. Girls did not appear to consider how their career and lifestyle choices would fit together.

In a study of 1st, 3rd, and 5th grade students, Garrett, Ein & Tremaine (1977) asked 355 their opinion of which sex "can be" each of 40 adult jobs presented in list form. The researchers reviewed with students the meaning of the word "can" and described each occupation. Students were then asked to mark the picture (only women, mostly women, women and men, mostly men, and only men) that represents their view of the occupation. They found males to be more stereotyped in their occupational views than females.

Stereotyping also appeared to decline as grade levels increased. The authors generalized the results by stating " ...these results indicate that older children tended to have less rigid gender stereotypes toward occupations than the younger ones. This pattern was strongest for the male jobs but was also significant for the neutral jobs" (p. 511).

In Smith's (1995) study, gender was not found to be associated with occupational sex-role stereotyping. Billings (1992) found a statistically significant interaction between gender and socioeconomic status of parents and scores on an occupational sex-stereotyping instrument. Girls from low

socioeconomic status parents were found to have numerically higher occupational sex-stereotyping than girls from high socioeconomic status parents. Boys from low socioeconomic parents had higher Occupational Sex-Stereotyping than boys from high socioeconomic parents.

Family Status and Occupational Sex-role Stereotyping

The role of the family is an extremely influential factor in the development of sex-role stereotypes in both boys and girls. "Vocationally mature adolescents use information from home and the community to make curriculum choices and to contemplate future involvement in the world of work." (DeRidder, 1990 cited by Morrow, 1995 p. 311)

Rosenthal (1979, cited in Morrow, 1995) "... found a positive correlation between vocational aspirations, vocational maturity, and positive perceptions of parents among seventh, eighth, and ninth graders."(p. 312)

Lankard (1995) asserted that family processes and interaction can have a significant role in the vocational development of a child.

> Although much of the research on the role of family in vocational and career development has focused on family background, the investigation of family processed viewed in relation to life roles offers additional insight into the influences of the family. Family processes of interaction, communication, and behavior influence what the child learns about work and work experiences. (p. 1)

Bartholomew & Schnorr (1994) maintained that home environment can have a detrimental effect on essential tasks involved in career development.

> The failure of adolescents to engage in meaningful career exploration can be symptomatic of dysfunction within the family behavior dimensions of cohesion and adaptability. For example, over identification

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(undifferentiation) with the family because of extreme family loyalty (extreme cohesion) can negatively affect the development of autonomy. (p. 312)

The extent to which family functioning predicted success in career choices of 215 students in the 11th grade was investigated by Penick and Jepson (1992). The students were asked to complete a Family Functioning Scale (FFS) and several career development scales including the Career Planning Involvement Scale and the Vocational Identity Scale. The results demonstrated that family functioning was a strong predictor of the career development success of high school students. The authors maintained that students from blended and disengaged families may have difficulties in some tasks associated with career exploration.

Morrow (1995) maintained that dysfunctional family behaviors can hinder adolescent exploration, an important developmental task for career decision making. Family behaviors may affect adaptability, emotional bonding, and communication skills. These skills are essential for information collecting and decision making.

Smith (1995) found that the family structure in which students live was not associated with occupational sex-role stereotyping. Billings (1992) also found family structure was not associated with sex-role stereotyping.

Participation in Extracurricular Activities and Occupational Sex-role Stereotyping

Students who participate in extracurricular activities, including athletics, report increased self-confidence, maintain higher grade point averages, and have better attendance records than other students (National Federation of State High School Associations, 1996).

In general, those who participate in student activities are able to identify with a social group, learn the skills necessary to work in various group settings, develop problem-solving skills, develop positive work habits and learn from positive role models in the form of coaches, administrators and officials. Students who participate in activities in school are less likely to drop out of school and are more likely to spend longer amounts of time on homework. Respect for their school and its rules is also fostered by participation (Gribben, 1990).

Participation in athletics can have varied effects on the development of gender roles in women. Koivula (1995) surveyed the views of 104 females and 103 males concerning the gender appropriateness of 60 sports. All subjects were asked to rate each of the sports on a 7-point scale, "ranging from 1 ("Very appropriate for men, not at all for women") to 7 ("Very appropriate for women, not at all for men"). Men were more likely to view sports an other acitivities in a sex-typed manner, while women were more inclined to view sports as androgynous.

Students that participate in extra-curricular activities may have other difficulties. Often, the time and attention involved in these activities hinders the development of proper career exploration skills, social skills, and the formation of an identity (Goldberg, 1991). These drawbacks can be counteracted by proper attention from coaches, teachers, and counselors working alone or as a unit. "A major objective of the counselor, as consultant, would be to increase parents' and coaches' awareness of the developmental tasks confronting student-athletes and to educate them to the critical role each plays in the lives of student-athletes" (Goldberg, p.334).

Summary

The literature reviewed indicated that children today are still exposed to occupational stereotyping at home and in the schools. Research results indicate that the stereotypes formed during a child's early years will have a profound effect on their educational and career decision making abilities.

Many studies have been conducted to identify the factors involved in the development of such stereotypes. In the schools, teacher and principal gender as well as the materials presented in student textbooks were found to have an effect on the ways students view careers. Gender was also indicated as a possible factor in the development of occupational stereotypes. Studies have indicated that boys reported more stereotyped views of careers than girls. Family structure, was found in some studies to have an impact on the development of career-related beliefs. Participation in extracurricular activities may increase student self-esteem, an essential component in the development of a vocational identity, however, participation in activities that are traditionally perceived as gender-inappropriate may lead to gender role conflicts.

Counselors and teachers who are aware of factors that may influence the vocational views of their students are likely to widen career horizons for students. Often those working in the schools contribute to the development of occupational stereotypes. Identifying and controlling the factors that lead to the development of stereotyped occupational views will allow students to learn more about themselves and their place in the world of work.

Statement of the Problem

The purpose of the researcher was to investigate occupational sex- role stereotyping in 7th, 8th and 9th grade students.

Rationale and Importance of the Research

As an expectant father, the researcher has an interest in the factors that mold the education, career and lifestyle choices of his child. As a teacher, counselor and activity sponsor, the researcher has an interest in identifying variables that influence the career development of all students.

The present study contained different combinations of variables than were found in the related literature. The study included participation in extra-curricular activities as an independent variable. This variable was not found in literature concerning occupational sex-role stereotyping.

The results of this study could be used by intermediate level counselors, teachers and administrators to develop affective programs, teacher inservices and parent workshops to help students develop an awareness of career opportunities. Counselors involved in career counseling may use the information obtained from this study to aide students in the selection of an occupation from a wider variety of choices.

The outcomes of this study will contribute to the present knowledge of independent variables such as gender, grade level, job status of the mother, family structure, self reported grades, involvement in school directed extracurricular activities, participation in career planning activities and size of school.

The results from the present study provided information pertaining to the following questions:

1. Is there an association between gender and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?
2. Is there an association between grade level and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?

3. Is there an association between job status of the mother and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?
4. Is there an association between family structure and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?
5. Is there an association between participation in extra curricular activities and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?
6. Is there an association between participation in career planning activities and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?
7. Is there an association between self reported grades and occupational sex -role stereotyping in 7th, 8th, and 9th grade students?
8. Is there an association between size of school and occupational sex - role stereotyping in 7th, 8th, and 9th grade students?

Composite Null Hypotheses

All null hypotheses were tested at the .0500 level of significance.

1. The differences among the mean Occupational Sex - Stereotyping scores for 7th, 8th and 9th grade students according to gender, grade level, and job status of the mother will not be statistically detectable.
2. The differences among the mean Occupational Sex - Stereotyping scores for 7th, 8th and 9th grade students according to gender, grade level, and family structure will not be statistically detectable.
3. The differences among the mean Occupational Sex - Stereotyping scores for 7th, 8th and 9th grade students according to gender, participation in extracurricular activities, and size of school will not be statistically detectable.

4. The differences among the mean Occupational Sex - Stereotyping scores for 7th, 8th and 9th grade students according to gender, participation in career planning activities, and job status of the mother will not be statistically detectable.
5. The differences among the mean Occupational Sex - Stereotyping scores for 7th, 8th and 9th grade students according to gender, grade level, and size of school will not be statistically detectable.
6. The differences among the mean Occupational Sex - Stereotyping scores for 7th, 8th and 9th grade students according to grade level, self-reported grades, and job status of the mother will not be statistically detectable.

Independent Variables and Rationale

The following independent variables were investigated: gender, grade level, job status of the mother, family structure, self reported grades, participation in extra-curricular activities, participation in career planning activities, and size of school. These variables were chosen due to the lack of research pertaining to occupational sex-role stereotyping and combination of variables. The studies that were found did not provide conclusive results.

Definition of Variables

Independent Variables

Information pertaining to the independent variables came from the Demographic Information Sheet and Student Activity Sheet . Eight independent variables were investigated. They were the following:

1. gender - two levels
   level one - girls, and
   level two - boys;

2. grade level - three levels

   level one - 7th grade,

   level two - 8th grade, and

   level three - 9th grade;

3. job status of the mother - three levels determined post hoc

   level one- not working outside the home,

   level two- working part-time outside the home, and

   level three- working full-time outside the home;

4. family structure - three levels determined post hoc

   level one- both biological parents at home,

   level two- one biological parent at home, and

   level three- other;

5. self reported grades - five levels determined post hoc

   level one- all A's,

   level two- A's and B's,

   level three- B's and C's,

   level four- C's and below, and

   level five- A's, B's and C's;

6. extra curricular activities- four levels determined post hoc

   level one- low participation (1-7 on student activity sheet),

   level two- medium participation (8-12 on student activity sheet),

   level three- high participation (13-27 on student activity sheet), and

   level four- no participation (0 on student activity sheet);

7. career planning - two levels;

   level one - have participated, and

   level two - have not participated;

8. size of school - two levels;

level one - 2A, and

level two - 1 A.

Dependent Variable

The dependent variable was scores from the Occupational Sex-Stereotyping Instrument (possible scores, 0-39)

Limitations

The following may have affected the results of the study:

1. sample was not random;
2. subjects were limited to two school districts in Southwest Kansas;
3. only grades 7, 8, and 9 were included in the study; and
4. all data were self-reported.

Methodology

Setting

The research was conducted in two small Southwest Kansas cities. The first city consisted of a population of approximately 2,266. The major sources of income are government employment, agriculture and retail businesses (Hugoton Chamber of Commerce, 1996). The schools utilized in this survey were the middle school consisting of grades 5-8 and the high school consisting of grades 9-12. The enrollment of the middle school is 188 with a staff of 13 teachers. The ratio of teachers to students is 14.5. The enrollment of the high school is 172 students with a staff of 21 teachers. The ratio of teachers to students is 8.2 (Hugoton Chamber of Commerce).

The second city had a population of approximately 379. The major sources of income are agriculture, and construction (Hugoton Chamber of Commerce). The school utilized in this survey consisted of grades K-12. The

enrollment is 220 students with a teaching staff of 19 teachers. The ratio of teachers to students is 11.6 (Hugoton Chamber of Commerce).

Subjects

The sample consisted of 7th, 8th , and 9th grade students from two school districts of neighboring cities in Southwest Kansas. The first school was classified 2A (enrollment range 134 - 97) and the second was classified as 1 A (enrollment range 85 - 18). These classifications are determined by the enrollment numbers of 10th, 11th, and 12th grade students attending the district on September 20th. Enrollment numbers are sent to the State High School Activities Association which then divides the schools into categories. Classification of schools is conducted each school year. There are 64 schools with 2A classifications. There are 110 school with 1A classifications (Kansas State High School Activities Association, 1996).

The sample from the 1A school was comprised of 11 students from the 7th grade (6 males and 5 females), 17 students from the 8th grade (8 males and 9 females) and 11 students from the 9th grade (4 males and 7 females. The sample from the 2A school included 39 students from the 7th grade (19 males and 20 females), 49 students from the 8th grade (26 males and 23 females) and 51 students from the 9th grade(25 males and 26 females). All students present in the 7th, 8th, and 9th grades in the 2A school were surveyed and all students present in the 7th, 8th, and 9th grades in the 1A school were surveyed.

Instruments

Three instruments were employed. A Demographic Information Sheet, a Student Activity Sheet, and the Occupational Sex- Stereotyping Instrument.

Demographic Information Sheet. The Demographic Information Sheet (Appendix A) was prepared by the researcher after reviewing the related

literature. This instrument addressed the following: gender, grade level, job status of the mother, participation in extracurricular activities, participation of career planning activities, family status, self reporting of grades and size of school.

Student Activity Sheet. The Student Activity Sheet (Appendix B) was developed to measure, in Likert-type scale, the level of involvement in school-related extra-curricular activities. The instrument was altered to reflect the activities available to students at the schools involved in this study. The instrument measured participation in three areas; Athletics, Fine Arts, and Clubs. Four options are provided: high involvement (3); average involvement (2); low involvement (1); and no involvement (0). Responses were added together to determine a participation score. Possible scores were 0-36.

Occupational Sex - Stereotyping Instrument The Occupational Sex - Stereotyping Instrument (Appendix C) was adapted by Eichman (1987) from three studies (Baily & Nihlen, 1983; Scheresky, 1977; and Kennedy, 1979; cited by Eichman, 1987). The original instrument consisted of a list of 34 occupations. Five occupations; counselor, nurse practitioner, paralegal, superintendent,and repair person, were added by the researcher. The student was asked to circle one of three choices. The choices were; "male only," "female only," or "both." Responses of "male only" and "female only" were counted as sex-stereotyped responses. Possible scores were 0-39. No measures of validity and reliability were available for this instrument.

Design

A status survey factorial design was employed. The following independent variables were investigated: gender, grade level, job status of the mother, family structure, self reported grades, participation in extracurricular activities,

participation in career planning activities, and size of school. The dependent variable was scores from the Occupational Sex Stereotyping Instrument. Six Composite null hypotheses were tested employing three-way analysis of variance (general linear model) at the .0500 level of significance. The following design was employed with each composite null hypothesis:

composite null hypothesis number one, a 2 X 3 X 3 factorial design,

composite null hypothesis number two, a 2 X 3 X 3 factorial design,

composite null hypothesis number three, a 2 X 4 X 2 factorial design,

composite null hypothesis number four, a 2 X 2 X 3 factorial design,

composite null hypothesis number five, a 2 X 3 X 2 factorial design, and

composite null hypothesis number six, a 3 X 2 X 5 factorial design.

Data Collection Procedures

The principals of each building were contacted personally and in writing (Appendix D) to inform them of the purpose of the research and to obtain permission to survey students in the 7th, 8th, and 9th grades. Written permission was obtained from each of the principals (Appendix E). All students present in the 7th, 8th, and 9th grades in the 2A school were surveyed and all students present in the 7th, 8th, and 9th grades in the 1A school were surveyed. No students were excluded from the survey. Appropriate times were scheduled with the teachers involved. Thirty minute intervals were allowed for completion of the instruments. Standard instructions were utilized for data collection (Appendix F). The researcher read introductory instructions. All students were informed of their right not to participate. Then each student received a packet of materials including: the Demographic Information Sheet, the Student Activity Sheet, and the Occupational Sex- Stereotyping Instrument (Appendixes A, B and C). The researcher continued with instructions and answered questions.

All returned copies of the questionnaires were examined by the researcher for completeness. None were found to be incomplete. Data were prepared by the researcher for mainframe computer analysis at the computing center of Fort Hays State University, Hays, Kansas.

Data Analysis

The following were compiled:

1. appropriate descriptive statistics,
2. three-way analysis of variance (general linear model),
3. Bonferroni (Dunn) t-test for means, and
4. Duncan's multiple range test for means

Results

The purpose of the researcher was to investigate occupational sex-role stereotyping in 7th, 8th, and 9th grade students. The independent variables investigated were: gender, grade level, self-reported grades, participation in career planning activities, family structure, job status of the mother, participation in extracurricular activities and size of school. The dependent variable was Occupational Sex-Stereotyping scores. The sample consisted of 178 middle school students. Six composite null hypotheses were tested at the .0500 level. Each composite null hypothesis was tested employing a three-way analysis (general linear model). The following design was used with each composite null hypothesis:

composite null hypothesis number one, a 2 X 3 X 3 factorial design,

composite null hypothesis number two, a 2 X 3 X 3 factorial design,

composite null hypothesis number three, a 2 X 4 X 2 factorial design,

composite null hypothesis number four, a 2 X 2 X 3 factorial design,

composite null hypothesis number five, a 2 X 3 X 2 factorial design, and

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composite null hypothesis number six, a 3 X 5 X 3 factorial design.

The results section was organized according to composite null hypotheses for ease of reference. Information pertaining to each composite null hypothesis was presented in a common format for ease of comparison.

It was hypothesized in composite null hypothesis number one that the differences among the mean Occupational Sex-Stereotyping scores for 7th, 8th and 9th grade students according to gender, grade level and job status of the mother would not be statistically detectable. Information pertaining to composite null hypothesis number one was presented in Table 1. The following were cited in Table 1: variables, group sizes, means, standard deviations, F values and p levels.

Table 1: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th and 9th Grade Students According to Gender, Grade Level and Job Status of the Mother Employing a Three-Way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F Value	p level
Gender (A)					
male	88	7.1	7.05	3.87	.0504
female	89	4.4	5.49		
Grade Level(B)					
7th	50	5.3	6.86		
8th	66	4.2a	4.71	3.32	.0385
9th	61	7.8b	7.20		
Job Status of the Mother (C)					
none out of home	47	6.8	7.36		
full time	94	5.0	6.12	1.36	.2589
part time	36	6.5	5.82		
		Interactions			
		A X B		2.91	.0573
		A X C		2.82	.0626
		B X C		0.48	.7495
		A X B X C		0.25	.9108

* The larger the value the greater the stereotyping, the possible scores are 0-39.

ab Difference is statistically detectable at the .0500 level according to Bonferroni (Dunn) t test for means

One of the 7 p values was statistically detectable at the .0500 level; therefore, the null hypothesis for this comparison was rejected. The statistically significant comparison was for the main effect grade level and Occupational Sex - Stereotyping scores. The results cited in Table 1 indicated students enrolled in the 9th grade had statistically larger mean Occupational Sex - Stereotyping scores (greater stereotyping) than those in grade 8.

It was hypothesized in composite null hypothesis number two that the differences among the Occupational Sex-Stereotyping score for 7th, 8th and 9th grade students according to gender, grade level, and family structure would not be statistically detectable. Information pertaining to composite null hypothesis number two was presented in Table 2. The following were cited in Table 2: variables, group sizes, means, standard deviations, F values and p levels.

Table 2: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th and 9th Grade Students According to Gender, Grade Level and Family Structure Employing a Three-Way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F Value	p level
Gender (A)					
male	88	7.1	7.04	0.27	.6018
female	89	4.4	5.49		
Grade Level(B)					
7th	50	5.3	6.86		
8th	66	4.2	4.71	0.75	.4754
9th	61	7.8	7.20		
Family Structure (D)					
both biological parents	112	5.6	5.99		
one biological parent	54	6.5	7.41	0.93	.3964
other	11	4.2	5.84		
	Interactions				
	A X B			2.77	.0656
	A X D			1.05	.3511
	B X D			1.12	.3476
	A X B X D			0.41	.7450

* The larger the value the greater the stereotyping, the possible scores are 0-39.

None of the 7 p values was statistically detectable at the .0500 level; therefore, the null hypotheses for these comparisons were retained. The results cited in Table 2 indicated no associations between independent variables and the dependent variable. All subgroups appeared to have come from a common population.

It was hypothesized in composite null hypothesis number three that the differences among the Occupational Sex-Stereotyping scores for 7th, 8th and 9th grade students according to gender, participation in extracurricular activities and size of school would not be statistically detectable. Information pertaining to composite null hypothesis number three was presented in Table 3. The following were cited in Table 3: variables, group sizes, means, standard deviations, F values and p levels.

Table 3: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th and 9th Grade Students According to Gender,Participation in Extracurricular Activities and Size of School Employing a Three-Way Analysis of Variance (General Linear Model)

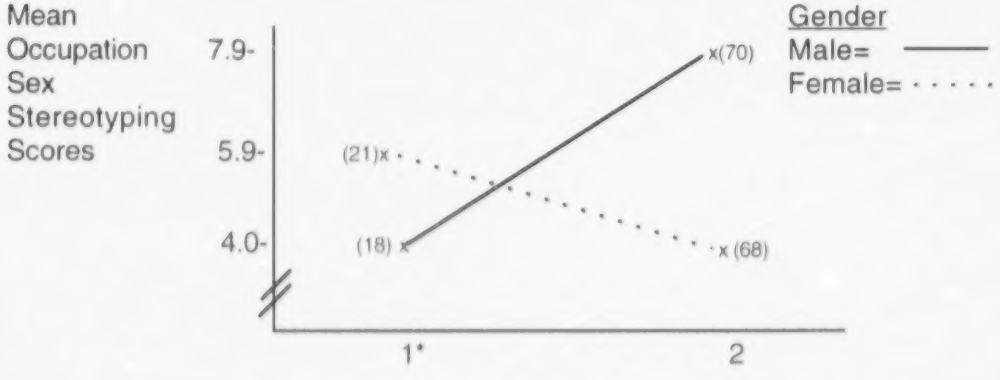
Variable	n	M*	s	F Value	p level
Gender (A)					
male	88	7.1	7.05	0.15	.6991
female	89	4.4	5.49		
Participation (E)					
none	4	8.0	4.09		
low	56	6.5	7.46	2.8	.0925
medium	81	6.0	6.13		
high	36	3.9	5.33		
School Size (F)					
1A	39	5.0	6.22	.040	.5281
2A	138	6.0	6.5		
		Interactions			
		A X E		0.37	.7777
		A X F		9.54	.0024
		E X F		1.02	.3636
		A X E X F		0.11	.8962

* The larger the value the greater the stereotyping, the possible scores are 0-39.

One of the 7 p values was statistically detectable at the .0500 level; therefore, the null hypothesis for this comparison was rejected. The statistically detectable comparison was for the interaction between the independent variables gender and school size for the dependent variable Occupational Sex - Stereotyping scores.

The interaction between the independent variables gender and school size for the dependent variable Occupational Sex - Stereotyping scores was depicted in a profile plot. Figure 1 contains mean Occupational Sex - Stereotyping scores and curves for gender.

Figure 1: The Interaction Between Gender and School Size for the Dependent Variable Occupational Sex - Stereotyping Scores.



The interaction between gender and school size for the dependent variable Occupational Sex - Stereotyping scores was disordinal. The results cited in Figure 1 indicated the following:

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1. male students from school size 2 (larger enrollment size) had numerically the largest mean Occupational Sex - Stereotyping score of any subgroup,and

2. male students from school size 1 (smaller enrollment size) and female students from school size 2 had numerically the smallest mean Occupational Sex - Stereotyping scores of any subgroups.

It was hypothesized in composite null hypothesis number four that the differences among the Occupational Sex-Stereotyping scores for 7th, 8th and 9th grade students according to gender, participation in career planning activities and job status of the mother would not be statistically detectable. Information pertaining to composite null hypothesis number four was presented in Table 4. The following were cited in Table 4: variables, group sizes, means, standard deviations, F values and p levels.

Table 4: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th and 9th Grade Students According to Gender, Participation in Career Planning Activities and Job Status of the Mother Employing a Three-Way Analysis of Variance (General Linear Model)

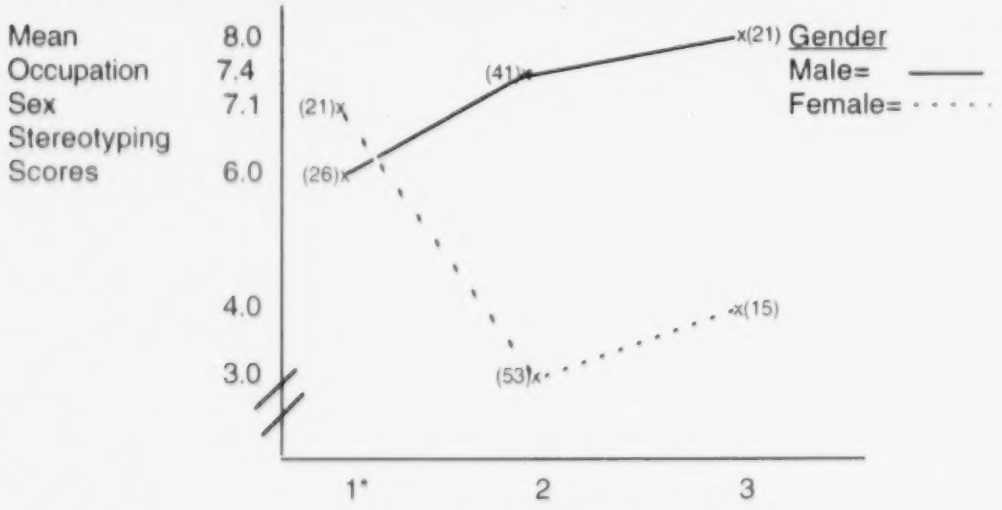
Variable	n	M*	s	F Value	p level
Gender (A)					
male	88	7.1	7.05	3.12	.0790
female	89	4.4	5.49		
Career Planning (G)					
yes	126	6.1	6.74	2.32	.1299
no	51	5.0	5.61		
Job Status of the Mother (C)					
none out of home	47	6.8	7.36		
full time	94	5.0	6.12	0.74	.4781
part time	36	6.5	5.82		
Interactions					
A X G				0.10	.7524
A X C				3.26	.0410
G XC				0.18	.8343
A X G X C				0.01	.9884

* The larger the value the greater the stereotyping, the possible score was 0-39.

One of the 7 p values was statistically detectable at the .0500 level; therefore, the null hypothesis for this comparisons was rejected. The statistically detectable comparison was for the interaction between the independent variables gender and job status of the mother and the dependent variable Occupational Sex - Stereotyping scores.

The interaction between the independent variables gender and job status of the mother for the dependent variable Occupational Sex - Stereotyping scores was depicted in a profile plot. Figure 2 contains mean Occupational Sex - Stereotyping scores and curves for gender.

Figure 2: The Interaction Between Gender and Job Status of the Mother for the Dependent Variable Occupational Sex - Stereotyping Scores.



* 1 = no work outside of the home
2 =full-time work outside of the home
3 = part-time work outside of the home

The interaction between gender and job status of the mother for the dependent variable Occupational Sex - Stereotyping scores was disordinal.

The results cited in Figure 2 indicated the following:

1. male students whose mother worked part-time outside the home had numerically the largest mean Occupational Sex - Stereotyping score of any subgroup,and

2. female students whose mother worked full-time had numerically the smallest mean Occupational Sex Role Stereotyping scores of any subgroup.

It was hypothesized in composite null hypothesis number five that the differences among the Occupational Sex-Stereotyping scores for 7th, 8th and 9th grade students according to gender, grade level, and size of school would not be statistically detectable. Information pertaining to composite null hypothesis number five was presented in Table 5. The following were cited in Table 5: variables, group sizes, means, standard deviations, F values and p levels.

Table 5: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th and 9th Grade Students According to Gender, Grade Level and Size of School Employing a Three-Way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F Value	p level
Gender (A)					
male	88	7.1	7.05	1.16	.2829
female	89	4.4	5.49		
Grade Level(B)					
7th	50	5.3	6.86		
8th	66	4.2a	4.71	4.83	.0091
9th	61	7.8b	7.20		
Size of School (F)					
1A	39	5.0	6.22	1.17	.2809
2A	138	6.0	6.50		
		Interactions			
		A X B		0.38	.6866
		A X F		5.46	.0207
		B X F		3.34	.0377
		A X B X F		3.49	.0327

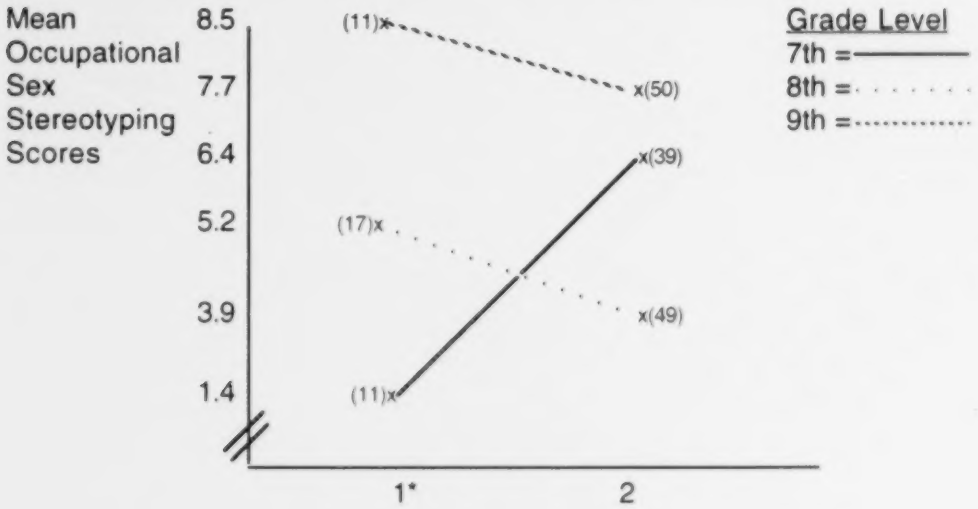
* The larger the value the greater the stereotyping, the possible scores were 0-39.
ab Difference is statistically detectable at the .0500 level according to Bonferroni (Dunn) t test for means

Four of the 7 p values were statistically detectable at the .0500 level; therefore, the null hypotheses for these comparisons were rejected. One of the statistically detectable comparisons was for the main effect grade level and Occupational Sex-Stereotyping scores (recurring, Table 1). Three of the statistically significant comparisons were for interactions. The following interactions were statistically detectable at the .0500 level:

1. the independent variables gender and school size for the dependent variable Occupational Sex-Stereotyping scores (recurring, Figure 1),
2. the independent variables grade level and school size for the dependent variable Occupational Sex-Stereotyping scores, and
3. the independent variables gender, grade level and school size for the dependent variable Occupational Sex-Stereotyping scores.

The interaction between gender and school size for the dependent variable Occupational Sex-Stereotyping scores was depicted in a profile plot. Figure 3 contains mean Occupational Sex-Stereotyping scores and curves for grade level.

Figure 3: The Interaction Between Grade Level and School Size for the Dependent Variable Occupational Sex-Stereotyping Scores.



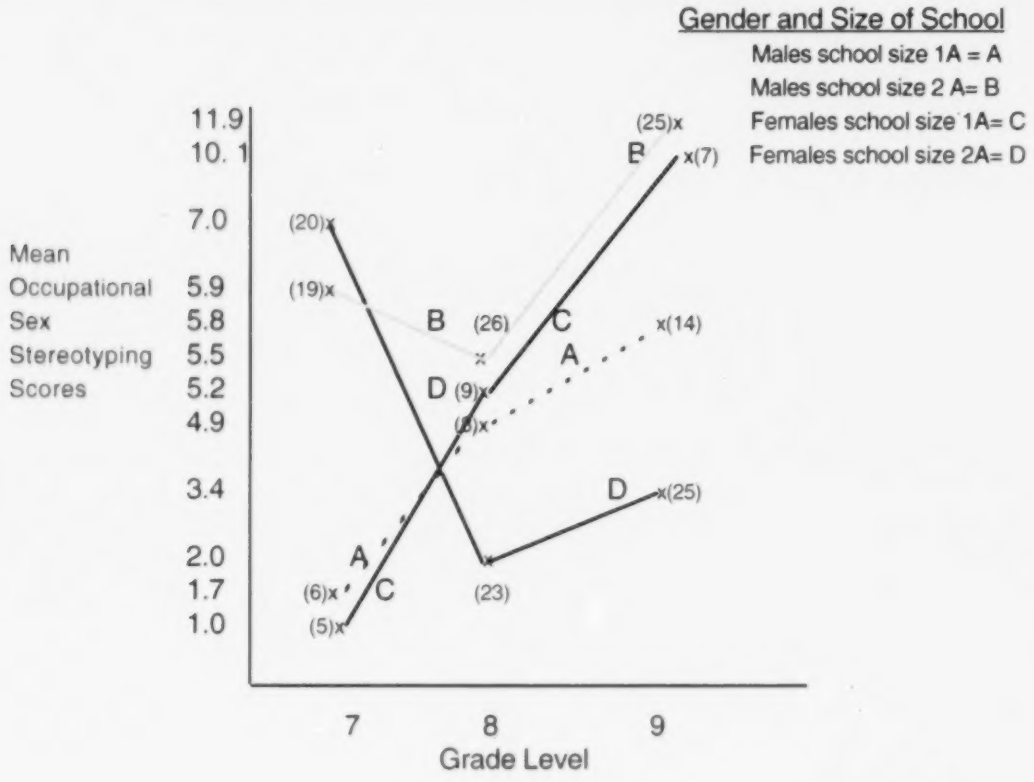
School Size
* 1= 1A school size range18-85
2= 2A school size range 87-134

The interaction between grade level and school size for the dependent variable Occupational Sex-Stereotyping scores was disordinal. The results cited in Figure 3 indicated the following:

1. 9th grade students enrolled in the 1A school (smaller school size) had numerically the largest mean Occupational Sex-Stereotyping score of any subgroup,and
2. 7th grade students enrolled in the 1A school (smaller school size) had numerically the smallest mean Occupational Sex-Stereotyping scores of any subgroup.

The interaction among gender, grade level and school size for the dependent variable Occupational Sex-Stereotyping scores was depicted in a profile plot. Figure 4 contains mean Occupational Sex-Stereotyping scores and curves for gender and size of school.

Figure 4: The Interaction Among Gender, Grade Level and School Size for the Dependent Variable Occupational Sex-Stereotyping Scores.



The interaction among gender, grade level and school size for the dependent variable Occupational Sex-Stereotyping scores was disordinal. The results cited in Figure 4 indicated the following:

1. male students enrolled in the 2A school (larger school size)and in the 9th grade had numerically the largest mean Occupational Sex-Stereotyping score of any subgroup, and
2. female students enrolled in the 1A school (smaller school size)and in the 7th grade had numerically the smallest mean Occupational Sex-Stereotyping scores of any subgroup.

It was hypothesized in composite null hypothesis number six that the differences among the Occupational Sex-Stereotyping scores for 7th, 8th and 9th grade students according to grade level, self-reported grades and job status of the mother would not be statistically detectable. Information pertaining to composite null hypothesis number six was presented in Table 6. The following were cited in Table 6: variables, group sizes, means, standard deviations, *F* values and *p* levels.

Table 6: A Comparison of Mean Occupational Sex-Stereotyping Scores of 7th, 8th and 9th Grade Students According to Grade Level, Self-Reported Grades and Job Status of the Mother Employing a Three-Way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F Value	p level
Grade Level(B)					
7th	50	5.3	5.77		
8th	66	4.2a	4.68	6.94	.0014
9th	61	7.8b	5.82		
Self-Reported Grades(H)					
All A's	17	4.2d	4.56		
A's and B's	68	3.8a	4.62		
B's and C's	29	8.8b	7.56	3.81	.0247
C's and Below	25	7.9	7.62		
A's, B's and C's	38	6.2	7.09		
Job Status of the Mother (C)					
none out of home	47	6.8g	7.36		
full time	94	5.0h	6.12	5.08	.0008
part time	36	6.5	5.82		
Interactions					
B X C				0.94	.4836
B X H				1.27	.2860
C X H				1.49	.1662
B XC X H				1.34	.1917

* The larger the value the greater the stereotyping, the possible scores were 0-39.

ab Difference is statistically detectable at the .0500 level according to Bonferroni (Dunn) t test for means.

cd Difference is statistically detectable at the .0500 level according to Duncan t test for means.

gh Difference is statistically detectable at the .0500 level.

Three of the 7 p values was statistically detectable at the .0500 level; therefore, the null hypotheses for these comparisons were rejected. The following main effects were statistically detectable at the .0500 level:

1. the independent variable grade level for the dependent variable Occupational Sex-Stereotyping scores (recurring table 1),
2. the independent variable self-reported grades for the dependent variable Occupational Sex-Stereotyping scores, and
3. the independent variable job status of the mother for the dependent variable Occupational Sex-Stereotyping scores.

The results cited in Table 6 indicated the following for main effects:

1. students whose mothers did not work outside the home had a statistically larger mean Occupational Sex-Stereotyping score than students whose mothers worked full-time outside the home, and
2. students who reported grades of "B and C" had a statistically larger mean Occupational Sex-Stereotyping score than students who reported "All A's " and "A's and B's".

Discussion

Summary

The purpose of the researcher was to investigate occupational sex-role stereotyping in 7th, 8th, and 9th grade students. The independent variables investigated were: gender, grade level, self-reported grades, participation in career planning activities, family structure, job status of the mother, participation in extracurricular activities and size of school. The dependent variable was Occupational Sex-Stereotyping scores. The sample consisted of 178 middle school students. Six composite null hypotheses were tested at the .0500 level. Each composite null hypothesis was tested employing a three-way analysis

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(general linear model).

A total of 26 comparisons was made plus 16 recurring. Of the 26 comparisons 8 were for main effects and 18 were for interactions. Of the 8 main effects, 3 were statistically detectable at the.0500 level. The statistically detectable main effects were for grade level, job status of the mother and self reported grades. The results indicated the following for main effect:

1. Students enrolled in the 9th grade had astatistically larger mean Occupational Sex-Stereotyping score than students enrolled in the 8th grade,
2. students whose mothers did not work outside the home had a statistically larger mean Occupational Sex - Stereotyping score than students whose mothers worked full-time outside the home, and
3. students who reported grades of "B and C" had a statistically larger mean Occupational Sex - Stereotyping score than students who reported "All A's " and "A's and B's".

Of the 18 interactions, 4 were statistically detectable at the .0500 level. the following interactions were detectable:

1. the independent variables gender and school size for the dependent variable Occupational Sex-Stereotyping scores,
2. the independent variables gender and job status of the mother for the dependent variable Occupational Sex-Stereotyping scores,
3. the independent variables grade level and school size for the dependent variable Occupational Sex-Stereotyping scores, and
4. the independent variables gender, school size and grade level for the dependent variable Occupational Sex-Stereotyping scores.

Related Literature and the Results of the Present Study

The results of the present study did not support the findings of Archer (1994). Archer's study of 5th and 11th graders found gender differences in occupational sex-role stereotyping appeared to decrease as grade level increased. The present study found 9th grade students to have a larger mean Occupational Sex- Stereotyping scores than 8th grade students .

The results of the present study do not support one of the findings of Billings (1992). Billings found occupational sex-role stereotyping to decrease as grade level increased. The present study found 9th graders to have significantly larger mean occupational sex- role stereotyping scores than 8th grade students. One of the findings of Billings was supported by the present study. Family structure wa not associated with occupational sex-role stereotyping in both studies.

Information cited in the present study provided partial support to the findings of Smith's 1995 study of 4th, 5th and 6th grade students in one of the same districts involved in the present study. Both Smith and the present researcher found family structure is not associated with occupational sex-role stereotyping. However, Smith also found, grade level, gender, job status of the mother, self-reported grades and size of school were not associated with occupational sex-role stereotyping. These variables were associated with occupational sex-role stereotyping in the present study.

Generalizations

The results of the present study appeared to support the following generalizations:

1. students who reported grades of "B and C" have more occupational sex-role stereotypir g than those with grades of "All A's" and "A's and B's",

2. gender and school size should be interpreted concurrently for occupational sex-role stereotyping,

3. gender and job status of the mother should be interpreted concurrently for occupational sex-role stereotyping,

4. grade level and school size should be interpreted concurrently for occupational sex-role stereotyping,

5. gender, school size and grade level should be interpreted concurrently for occupational sex-role stereotyping,

6. participation in career planning activities of 7th, 8th and 9th graders is not associated with occupational sex-role stereotyping,

7. family structure of 7th, 8th and 9th graders is not associated with occupational sex-role stereotyping, and

8. participation in extracurricular activities of 7th, 8th and 9th graders is not associated with occupational sex-role stereotyping.

Implications

The results of this study can be used to alert those working with middle school students to the many factors that are involved in the formation of occupational choices. The variables found to be associated with occupational sex-role stereotyping can also be targeted for intervention during classroom based career programming or individual counseling sessions.

The results of the present study will be used to examine the need for career-based classromactivities in the districts involved in the study. Results will be shared with school staff members involved with curriculum development and the development of schoolwide affective programming.

Recommendations

The results of the present study appeared to support the following

recommendations:

1. the study should be replicated with a large random sample,
2. the study should be replicated using additional independent variables,
3. the study should be replicated using a different instrument,
4. the study should be replicated using other grade levels, and
5. the study should be replicated using other geographical locations.

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Appendix A

Demographic Information Sheet

Demographic Information Sheet

Please circle the best answer for each questions listed below.

I am a .....
- Boy
- Girl -

Grade:
- 7th
- 8th
- 9th

What grades so you make?
- All A's
- Mostly A's and B's
- All B's
- Mostly B's and C's
- All C's
- Mostly C's and D's
- Mostly D's and F's
- A's, B's, and C's

Have you participated in career planning activities at school?
- Yes
- No

I live with....
- both biological parents
- mother and stepfather
- mother
- father and stepmother
- father
- other (please explain)_____

_____

Does your mother have a job outside the home?
- yes
- no

If yes:
- full time
- part time

This Box for Researcher Use Only

Participation in extracurricular activities.
- High
- Medium
- Low

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Appendix B

Student Activity Sheet

Student Activity Sheet

Mark the activities below, according to participation in the current school year. Rate the degree of your participation by 3 (high involvement), 2 (average involvement), 1 (little involvement), and 0 (no involvement).

Athletics				
Cross-country, Football, Volleyball	3	2	1	0
Basketball, Wrestling	3	2	1	0
Baseball, Golf, Track	3	2	1	0
Cheerleading	3	2	1	0
Fine Arts				
Band, Choir	3	2	1	0
Special Vocal (musical, solo, ensemble)	3	2	1	0
Special Instrumental	3	2	1	0
Speech and Forensics	3	2	1	0
Clubs				
Student Council	3	2	1	0
Scholar Bowl	3	2	1	0
FFA	3	2	1	0

Appendix C

Occupationa Sex-Stereotyping Instrument

OCCUPATIONAL SEX STEREOTYPING

Circle "FEMALE ONLY" if you think only girls and women have the skills to do the job. Circle "MALE ONLY" if you think only boys and men have the skill to do the job. Circle "BOTH" if you think both females and males have the skill to do the job.

1. Zookeeper	FEMALE ONLY	MALE ONLY	BOTH
2. Fashion Designer	FEMALE ONLY	MALE ONLY	BOTH
3. Astronaut	FEMALE ONLY	MALE ONLY	BOTH
4. Engineer	FEMALE ONLY	MALE ONLY	BOTH
5. Singer	FEMALE ONLY	MALE ONLY	BOTH
6. Basketball Player	FEMALE ONLY	MALE ONLY	BOTH
7. News Broadcaster	FEMALE ONLY	MALE ONLY	BOTH
8. Baker	FEMALE ONLY	MALE ONLY	BOTH
9. Business Secretary	FEMALE ONLY	MALE ONLY	BOTH
10. Waitperson	FEMALE ONLY	MALE ONLY	BOTH
11. Computer Worker	FEMALE ONLY	MALE ONLY	BOTH
12. School Teacher	FEMALE ONLY	MALE ONLY	BOTH
13. Truck Driver	FEMALE ONLY	MALE ONLY	BOTH
14. Tennis Player	FEMALE ONLY	MALE ONLY	BOTH
15. Firefighter	FEMALE ONLY	MALE ONLY	BOTH
16. Model	FEMALE ONLY	MALE ONLY	BOTH
17. Police Officer	FEMALE ONLY	MALE ONLY	BOTH
18. Veterinarian	FEMALE ONLY	MALE ONLY	BOTH
19. Doctor	FEMALE ONLY	MALE ONLY	BOTH
20. Mechanic	FEMALE ONLY	MALE ONLY	BOTH
21. Farmer	FEMALE ONLY	MALE ONLY	BOTH
22. Scientist	FEMALE ONLY	MALE ONLY	BOTH
23. Artist	FEMALE ONLY	MALE ONLY	BOTH
24. Store Clerk	FEMALE ONLY	MALE ONLY	BOTH
25. Mail Carrier	FEMALE ONLY	MALE ONLY	BOTH
26. Airplane Pilot	FEMALE ONLY	MALE ONLY	BOTH
27. Lawyer	FEMALE ONLY	MALE ONLY	BOTH
28. Florist	FEMALE ONLY	MALE ONLY	BOTH
29. Nurse	FEMALE ONLY	MALE ONLY	BOTH
30. Heavy Equipment	FEMALE ONLY	MALE ONLY	BOTH
31. Athletic Coach	FEMALE ONLY	MALE ONLY	BOTH
32. Banker	FEMALE ONLY	MALE ONLY	BOTH
33. Principal	FEMALE ONLY	MALE ONLY	BOTH
34. Custodian	FEMALE ONLY	MALE ONLY	BOTH
35. Counselor	FEMALE ONLY	MALE ONLY	BOTH
36. Nurse Practitioner	FEMALE ONLY	MALE ONLY	BOTH
37. Paralegal	FEMALE ONLY	MALE ONLY	BOTH
38. Superintendent	FEMALE ONLY	MALE ONLY	BOTH
39. Repair Person	FEMALE ONLY	MALE ONLY	BOTH

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Appendix D

Letters to School Administration

December 11, 1996

Dr. Loren Lutes
Superintendent
USD #218
Elkhart, KS 67950

Dr. Lutes,

I am writing to request permission to implement an Occupational Sex-Stereotyping instrument in seventh eighth and ninth grade classrooms in your district. The information will be used in my thesis to complete the requirements for a Masters of Science Degree at Fort Hays State University.

I would appreciate your consideration of this request. Please return a written response regarding this matter. Thank you for your time.

Sincerely,

Steven Nordby
Assistant Counselor
USD #218

November 1, 1996

Mr. Clay Abla
Middle School Principal
USD #218
Elkhart, KS 67950

Mr. Abla,

I am writing to request permission to implement an Occupational Sex-Stereotyping instrument in seventh and eighth grade classrooms in your building. The information will be used in my thesis to complete the requirements for a Masters of Science Degree at Fort Hays State University.

I would appreciate your consideration of this request. Please return a written response regarding this matter. Thank you for your time.

Sincerely,

Steven Nordby
Assistant Counselor

November 1, 1996

Mr. Mac Plummer
Middle / High School Principal
USD #217
Rolla, KS 67954

Mr. Plummer,

I am writing to request permission to implement an Occupational Sex-Stereotyping instrument in seventh, eighth and ninth grade classrooms in your building. The information will be used in my thesis to complete the requirements for a Masters of Science Degree at Fort Hays State University.

I would appreciate your consideration of this request. Please return a written response regarding this matter. Thank you for your time.

Sincerely,

Steven Nordby
Assistant Counselor USD #218

Appendix E

Letters of Approval from Administration

December 12, 1996

Steven Nordby
P.O. Box 886
Elkhart, KS 67950

Dear Mr. Nordby;

I have examined your request to gather data from Elkhart students in grades 7,8 and 9. Students will be completing an occupational sex-stereotyping instrument and data sheet. Your request is granted. I feel the project will gather useful data with out any negative effects on students. Best wishes on your project.

Respectfully,

Dr. Loren D. Lutes
Superintendent

cc: files

March 12, 1997

Steve Nordby
PO Box 886
Elkhart, KS 67950

Dear Mr. Nordby,

I have examined your request to gather data from Elkhart students in grades 7 and 8 in Elkhart Middle School. Students will be completing an occupational sex-stereotyping instrument and data sheet. Your request is granted. I feel the project will gather useful data without any negative effects on students. Best wishes with your project.

Respectfully,

Clay Abla

Mr. Clay Abla
Principal

January 10, 1997

Steven Nordby
P.O. Box 886
Elkhart, KS 67950

Dear Mr. Nordby;

I am writing in reference to your request to administer an Occupational Sex - Stereotyping Instrument to students in USD #217. You have my permission to administer your instrument in 7-9 grade classrooms.

Please feel free to contact me if you are in need of any further assistance.

Sincerely,

Mac Plummer

Mac Plummer
Principal
USD #217

Appendix F

Standard Instruction Sheet

Instruction Sheet

My name is Steve Nordby and I am currently a counselor at Elkhart Schools. I am working towards completion of a thesis, which is one of the requirements for a Masters Degree from Fort Hays State University. I will give each of you a questionnaire and I would like for you to complete it in the next 30 minutes, You are not required to participate.

The papers I have handed out to you consist of an Demographic Information Sheet, a Student Activity Sheet, and an Occupational Sex-Stereotyping Instrument. Please find the page entitled Demographic Information Sheet. Answer each question as I read it aloud. Feel free to ask questions as we go along.

Now find the page entitled Student Activity Sheet. Read the directions silently as I read them aloud. Circle only one answer for each question as we read them together. Please do not discuss your answers. Are there any question?

Now find the page entitled Occupational Sex-Stereotyping. Read the directions silently as I read them aloud. Circle only one answer for each question as we read them together. Please do not discuss your answers. Are there any question?

Be sure to check your papers and see that there is only one answer for each question. Do not leave a question blank.

Appendix G

Letter from Lavonda Eichman M.S.

March 11,1997

Mr. Steven Nordby
Box 886
Elkhart, KS 67950

Dear Mr. Nordby,

You have permission to use the Occupational Sex-Stereotyping Inventory from my thesis, "Implementing Change in Career Awareness Among Primary Students," to collect data for your Master's Thesis.

Sincerely,

Lavonda Eichman

Lavonda Eichman

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